

Notice of Allowability

Application No.

09/633,132

Examiner

Eugene Lee

Applicant(s)

BASCERI, CEM

Art Unit

2815

pm

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/19/04.
2. ☒ The allowed claim(s) is/are 39,41,44-46,74,75,78-83 and 94-99.
3. ☒ The drawings filed on 04 August 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Tom Thomas
TOM THOMAS

SUPERVISOR, PATENT EXAMINER
TECHNICAL GROUP 100

DETAILED ACTION

Allowable Subject Matter

1. Claims 39, 41, 44-46, 74, 75, 78-83, and 94 thru 99 are allowed.
2. The following is an examiner's statement of reasons for allowance: The references of record, either singularly or in combination, do not teach or suggest at least "a capacitor comprising: a first conductive material having a first level and a second level, said first and second levels being connected by at least two sidewall regions between said first and second levels; and an ion implantation doped BST high dielectric constant thin film material having a substantially homogenous stoichiometry formed over said two sidewall regions." (claims 39, 41, 44-46, and 94-99)

Regarding claims 74, 75, and 78-83, the references of record, either singularly or in combination, do not teach or suggest at least "an integrated circuit capacitor device comprising: a first electrode having a first level and a second level, said first and second levels being connected by at least two sidewall regions between said first and second levels; and an ion implantation doped BST high dielectric constant thin film material having a substantially homogenous stoichiometry formed over said at least two sidewall regions."

The cited art, Laibowitz et al. 6,088,216 or Hosotani et al. 6,051,859, discloses a capacitor that has a high dielectric film of substantially uniform stoichiometry wherein the film is the substantially the same stoichiometry (ABO₃ or 1:1:3) throughout. However, neither Laibowitz nor Hosotani disclose a dielectric film wherein the dielectric film has a substantially homogeneous stoichiometry (as disclosed by the applicant on page 2, line 12 to page 3, line 10; page 8, lines 9-16; and page 12, line 19 to page 13, lines 12 of the original specification) whose

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stoichiometry may still be uniform (because it contains substantially the same degree throughout), but not homogenous.

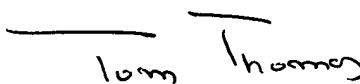
INFORMATION ON HOW TO CONTACT THE USPTO

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Lee whose telephone number is 571-272-1733. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on 571-272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eugene Lee
December 2, 2004


TOM THOMAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER (602)